

### **Abstract of The Disclosure**

In order to make possible to observe light rays in a wide energy band by reflecting the respective light rays therein, for example those in a region extending from soft X-ray to visible light at high reflection factors, a wide band normal incident telescope comprises a reflecting mirror involving a surface part wherein different types of multilayer films have been formed, respectively, in every regions of predetermined shapes, and reflecting light rays, which were input, by the surface part; and a detector to which the light rays reflected by the surface part are input, and which detects spectrally the light rays thus input.